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AND PUBLIC LANDS
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON RESOURCES

INTRODUCTION

Good morning, Mr. Chairman and members of the Committee. My name is Patricia Gleason, and I am the Director of the Water Protection Division at the U.S. Environmental Protection Agency Mid Atlantic Regional Office in Philadelphia. I thank you for your invitation to testify about EPA's NPDES permitting process and how that process applies to the operation of the Washington Aqueduct.

EPA's ROLE

In accordance with the provisions of the Clean Water Act (CWA), EPA is the permitting authority responsible for issuing NPDES permits in the District of Columbia. In addition to its NPDES permit authority, EPA is also responsible for the regulation of drinking water. EPA works closely with the Washington Aqueduct and its wholesale customers, the District of Columbia Water and Sewer Authority, Arlington County and Falls Church, Virginia, to insure that the Aqueduct and its customers comply with all applicable drinking water responsibilities and that they provide their individual customers with high quality drinking water. Finally, the Endangered Species Act (ESA) requires the EPA to utilize its authorities to carry out programs for the conservation of endangered and threatened species. Enacted to provide for the conservation of the ecosystems upon which endangered and threatened species depend, the ESA complements EPA's CWA authorities to restore and maintain the biological integrity of the Nation's waters.

In general, EPA follows the following procedures when it issues an NPDES permit. After EPA receives the permittee's application for an NPDES permit (or in this case an application for renewal of the permit), EPA begins work on a draft permit. A major part of this work is preparing limits for the discharge of pollutants by the permittee. Permit limits are based on both technology requirements and water quality impacts, and they set conditions on the pollutants to be discharged, such as restrictions on the mass and/or concentration of the pollutants, timing of the discharge, and monitoring requirements. EPA also puts in the draft general conditions that must be in any NPDES permit. At the same time EPA prepares the draft permit, it also prepares a fact sheet (a detailed explanation of the permit and its

terms) or a statement of basis (a less detailed explanation). Prior to sending the permit out for public comment, EPA will send a draft version of the permit to the appropriate State agency for certification that the draft permit will be protective of the state's water quality standards. In addition, the Region often discusses possible provisions of the draft permit with Federal and State agencies before it completes the draft permit. This provides essential information to the Region which it uses to formulate well considered draft permits.

After EPA has completed the draft permit, the Agency sends out a notice of its intent to issue the permit with the conditions set out in the draft permit. The notice also includes a solicitation of comments on the draft permit and the necessary information to request a hearing on the draft permit. EPA sends the notice to, among others, the permittee; other federal agencies, including the Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS); state agencies with responsibility over fish, shellfish and wildlife in the state; and persons who are on a mailing list EPA maintains of individuals who have expressed an interest in NPDES permits. EPA's NPDES regulations note EPA's obligation to comply with the ESA as well as the possibility that EPA may impose conditions based upon comments from FWS or NMFS. Notice of the draft permit is also published in a daily or weekly newspaper within the area affected by the discharge. Anyone may ask for a copy of the permit, the fact sheet (or statement of basis) and at the same time request a public hearing. Depending upon the interest in the permit, EPA may hold a public hearing to take comments on the draft permit.

After the public comment period is closed, EPA reviews the comments and prepares a document responding to the comments. At the same time, the Agency prepares a final permit, making any changes that are needed to respond to the public comments. EPA then issues the permit and sends a notice to anyone who sent in comments on the draft permit that the Agency has taken this action.

In taking any action to issue a permit, EPA must comply with the applicable requirements in section 7 of the Endangered Species Act (ESA) and 50 C.F.R. § Part 402. Under section 7, EPA must ensure, in consultation with the FWS and NMFS, that issuance of the permit is not likely to jeopardize the continued existence of any listed threatened or endangered species or result in the destruction or adverse modification of designated critical habitats. EPA has recently entered into a Memorandum of Agreement with the Fish and Wildlife Service and National Marine Fisheries Service that describes the process that the agencies will follow in consulting on NPDES permits. This process, which tracks the requirements in 50 C.F.R Part 402, includes a determination by EPA whether the permitted activity may affect a listed species and the need for informal or formal consultation. Based on the consultation, EPA imposes any permit conditions needed to ensure that the discharge is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Should the Service(s) anticipate incidental take of listed species, EPA also considers changes to the permit required by the Service(s) for incidental take to be authorized.

Any person who participated in the permit-issuance process is entitled to appeal a final permit to an administrative body at EPA, the Environmental Appeals Board, which can review whether the permit is based on a finding of fact or conclusion of law which is clearly erroneous, including a claim that the permit fails to comply with the ESA.

The U.S. Army Corps of Engineers (COE) owns and operates the Washington Aqueduct facility. The functions of the facility include the collection, purification, and pumping of an adequate supply of clean water for the District of Columbia, Arlington County (VA), and the City of Falls Church (VA). The Washington Aqueduct provides the water supply for approximately one million residents of the District of Columbia and Northern Virginia. The area residents receive water through distribution systems owned and operated by the Water and Sewer Authority or WASA (for the District of Columbia), Arlington County, and the City of Falls Church (the "Customers"). Water distribution is the responsibility of the Customers.

On April 3, 1989, EPA reissued NPDES Permit No. DC 0000019 to the COE for the Washington Aqueduct facility, effective date May 3, 1989. (EPA had previously issued this permit in 1983.) This NPDES permit allows for the discharge of residual solids from cleaning out the sedimentation basins used in water treatment to the Potomac River. Discharges to the Potomac are allowed only during high flow conditions. During these high flow events, the Potomac River contains a large quantity of solids. The Aqueduct's discharge represents less than twenty percent of the annual total river load of solids. The permit does not require any treatment of the discharge.

The present permit contains monitoring requirements but no specific effluent limits on Total Suspended Solids, Total Aluminum, Total Iron, and Flow in the permit. The permit does prohibit the discharge of floating solids or visible foam. The permit also requires the COE to meet a pH level of not less than 6.0 standard units nor greater than 8.5 standard units. The COE must take monitoring samples at the time of discharge. Samples are taken of pH, Total Suspended Solids, Total Aluminum, Total Iron, and Flow. These samples provide EPA a representation of the discharge's volume and nature. The COE reports its monitoring results to EPA on Discharge Monitoring Reports.

This permit had an expiration date of May 2, 1994. The COE applied for a new permit before the expiration date, and under 5 U.S.C. § 558(c) and 40 C.F.R. § 122.6(a), the prior permit continues in effect by operation of law pending EPA's decision to issue a new permit.

The NPDES permit required COE to conduct several studies on the toxicity of the discharge. The COE's contractor completed the initial studies and issued a report in February 1993. This report concluded that there were no apparent water quality effects from the release of the discharges.

In early 1995, EPA prepared a draft permit for comment. A copy of the permit was sent to the District of Columbia and the COE. In February 1995 significant concern arose from the Customers and COE because of the proposed new conditions in the draft permit. The new conditions would have

set limits on the concentrations of iron, aluminum and total suspended solids from the Aqueduct's discharge. This would have forced the construction and use of a residual recovery facility. The Customers expressed concern about the cost of such a facility. One issue for them was their ability to provide the lowest possible capital and operating costs for the Aqueduct users. Both the COE and the Customers also questioned the environmental necessity of a recovery facility.

Late in 1995, members of Congress requested EPA to delay the issuance of the permit to give the various parties involved a chance to build a new facility or develop an alternate plan including a change in the ownership and operations of the Aqueduct. As a result, in April 1996 EPA agreed to delay the issuance of the permit to provide time to explore the feasibility of turning over the operations of the Aqueduct to another operator. EPA also agreed to work closely with the Customers to resolve the issues.

On August 6, 1996, the Safe Drinking Water Act Amendments of 1996 (Public Law 104-182) became effective. Section 306 of the Amendments outlined a plan for the future operations of the Aqueduct. Congress encouraged the establishment of a non-Federal entity to take over the operations of the Aqueduct. Section 306 also required that, before reissuing the NPDES permit, EPA must consult with the Customers "regarding opportunities for more efficient water facility configurations that might be achieved through various possible transfers of the Washington Aqueduct. Such consultation shall include specific consideration of concerns regarding a proposed solids recovery facility, and may include a public hearing."

After discussions among the COE, EPA, and the Customers, these parties agreed on October 3, 1997, that contractors for the Customers would undertake a new study of the water quality effects of the Aqueduct's discharge and would address issues raised by EPA ("Discharge Study"). The parties agreed that the Discharge Study would include six parts: an effluent dilution and fate study, where a computer simulates river flow and the suspended solid's plume to determine acute and chronic dilution factors as a function of effluent loading and river flow; effluent toxicity testing to determine the toxicity of discharges to freshwater species; effluent chemical characterization, using existing effluent discharge data to calculate preliminary projections of receiving water concentrations in comparison to water quality criteria; an analysis of the Potomac's fishery to determine the effect of the discharge upon key anadromous and resident fish species; an analysis of the Potomac's macroinvertebrate community to characterize the community prior to and after discharge; and an analysis of a modification of the aluminum criteria in the event the other parts of the Aqueduct Study show that this would be desirable. Recognizing the potential that new effluent limits and special conditions in a revised NPDES permit could mandate the expenditure of large amounts of public funds, EPA believed this study was necessary to establish a scientifically sound basis for any new requirements written into the reissued Washington Aqueduct permit.

While the study was being developed, EPA entered into an Interagency Agreement (IAG) with FWS in April 1998 for assistance in developing discharge guidelines for the Washington Aqueduct

sediments. The purpose of this work was to determine whether or not there were any cost effective, short term remedies which the Washington Aqueduct could employ to avoid potential impacts to fish species that may migrate or spawn in the Potomac River in the vicinity of the Aqueduct discharges. In order to perform this work, EPA convened a panel of fisheries biologists from the District of Columbia, National Marine Fisheries Service, State of Maryland, FWS and the Interstate Commission on the Potomac River Basin (1998 Fisheries Panel) to provide recommendations on minimizing impacts to migratory fish from sediment discharges at the Aqueduct.

In March of 1999, the FWS submitted, in a report to EPA, the results of the 1998 Fisheries Panel's study and recommendations. EPA has discussed the results of the report with the COE. One recommendation by the Panel was that there should be no discharge in the Spring when anadromous fish spawn. This recommendation is difficult for the COE to implement because Springtime is often the only time during the year when high flow conditions are present in the Potomac and the COE cannot predict if it will be able to discharge later in the year. As stated earlier, the NPDES Permit limits the Aqueduct's discharge to high flow conditions.

On June 24, 1999, EPA approved the study plan for the Discharge Study. At EPA's request, staff from the Fish and Wildlife Service's ("FWS") Environmental Contaminants Branch from the Chesapeake Bay Office assisted EPA in the initial planning for the Discharge Study. EPA discussed the study plan with the FWS prior to approving it. The Discharge Study was performed by scientists at EA Engineering, Science & Technology, Inc. under contract to the Metropolitan Washington Council of Governments on behalf of the Customers.

Besides assisting EPA with the planning of the Discharge Study, FWS' Environmental Contaminants Branch has assisted in the review and interpretation of data generated by the Discharge Study. In addition, at the request of several citizen groups, FWS has participated with EPA in public meetings and informational sessions, most notably in the Spring of 2000 and on October 10, 2001. EPA was at both meetings to explain the techniques used during the collection of environmental data for the Discharge Study. EPA has reviewed the raw data which resulted from the effluent toxicity testing part of the Discharge Study and committed resources to review the draft Discharge Study and to follow through, as necessary, to explain the results of the Discharge Study to the public.

Field work for the studies began in August of 1999 and they were finally completed in May of 2001. The Discharge Study Report was finalized by October 10, 2001. Based upon the results of the study and other information available to EPA, it appears that the sediments have a negligible effect upon juvenile and adult fish in the Potomac River. In EPA's opinion, the acute toxicity studies showed that the discharge is not acutely toxic and the chronic toxicity tests, while not conclusive, seemed to support the conclusion that the discharge is not currently affecting juvenile and adult fish. The study did suggest a potential risk of smothering fish eggs and larvae if they are in the river at the time of the discharge.

Based on NMFS's continued concern about the presence of shortnosed sturgeon, and the Fisheries Panel's similar concern that the discharge may have a smothering effect on early life stages of fish, and in light of our ongoing section 7 consultation about the sturgeon, EPA is considering preparing a draft permit that will be beyond the present permit requirements to protect the river and its living resources.

With the recommendations of the FWS panel and the completion of the Discharge Study, EPA is now in a position to prepare a draft NPDES permit. EPA anticipates that a draft permit will be submitted for public comment by the end of calendar year 2001. This is an important part of the permitting process because it allows the public to express their opinion regarding the acceptability of the permit. In addition, as is its normal practice, EPA will also consult with the DC Department of Health to assure that the new permit meets DC Water Quality Standards. We will continue consulting with US Fish and Wildlife Service and National Marine Fisheries Service to ensure that endangered species and habitat are protected. In addition, since that State of Maryland and the Commonwealth of Virginia share the waters of the Potomac with the District of Columbia, they too will be provided the opportunity to comment on the draft permit. After reviewing the comments, EPA will then prepare a response to the comments and issue the final permit. The length of time it will take to issue a final permit depends on a number of factors, including the number and content of public comments received, and results of Congressionally mandated consultation with the Customers. At this time, EPA would expect to be in a position to issue the final permit in the Spring 2002.

As described above, EPA consults with the Service(s) whenever discharges under an NPDES may affect a listed species. EPA has discussed with the FWS and NMFS whether listed species, including the shortnose sturgeon, are present in areas potentially impacted by discharges from the Aqueduct. EPA is engaged in informal consultation with the FWS regarding potential effects, if any, on listed species. The shortnose sturgeon is under the jurisdiction of NMFS, which is the expert agency with regard to this species. According to NMFS, there are no data documenting the presence of sturgeon in waters affected by the discharge, although the presence of shortnose sturgeon has been documented in the lower and middle tidal reaches of the Potomac River and the habitat in the upper tidal Potomac River at Little Falls is similar to shortnose sturgeon spawning habitat in other river systems. Because sampling for shortnose sturgeon has been limited to 77 hours of sampling in two areas in the upper tidal reaches, additional data gathering would be necessary to conclusively prove its presence or absence. While EPA is not required to consult on an action that will have no effect on listed species, EPA and NMFS are taking a conservative approach and are currently engaged in informal consultation regarding the sturgeon. EPA will complete this process in accordance with the consultation procedures in the Service regulations and include any permit conditions needed to ensure compliance with the requirements of section 7 of the Endangered Species Act. In addition the Agencies have held telephone conversations discussing the steps that they would take to deal with the possibility that the reissuance of the NPDES Permit might affect these species.

In sum, I would characterize our status at this point in reissuing the Aqueduct's permit as gathering information, including the information shared as a result of our consultations with the Services, so that we can prepare a draft permit that meets the requirements of the ESA and the CWA. I would like to thank the members of this committee for inviting me to speak here today. Since these matters have been the subject of litigation, for the past year a significant amount of speculative information has been circulated. I appreciate the opportunity to appear before you to explain the current status of this important matter. Thank you.